SONY

HD CAMERA SIGNAL PROCESSOR

HDCS-300

HDVS

OPERATION MANUAL

1st Edition (Revised 2)

Serial No. 10001 and Higher

Warning — This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Important-To insure that the complete system (including this peripheral) is capable of complying with the FCC requirements, it is recommended that the user make sure that the individual equipment of the complete system has a label with one of the following statements.

"This equipment has been tested with a Class A Computing Device and has been found to comply with Part 15 of FCC Rules."

-or-

"This equipment complies with the requirements in Part 15 of FCC Rules for a Class A Computing Device."

-or equivalent.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC rules.

WARNING: Changing the voltage selector may require the use of a different line cord or attachment plug, or both.
To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

For the customers in Canada

This apparatus complies with the Class A limits for radio noise emissions set out in Radio Interference Regulations.

Pour les utilisateurs au Canada

Cet appareil est conforme aux normes Classe A pour bruits radioélectriques, spécifiés dans le Règlement sur le brouillage radioélectrique.

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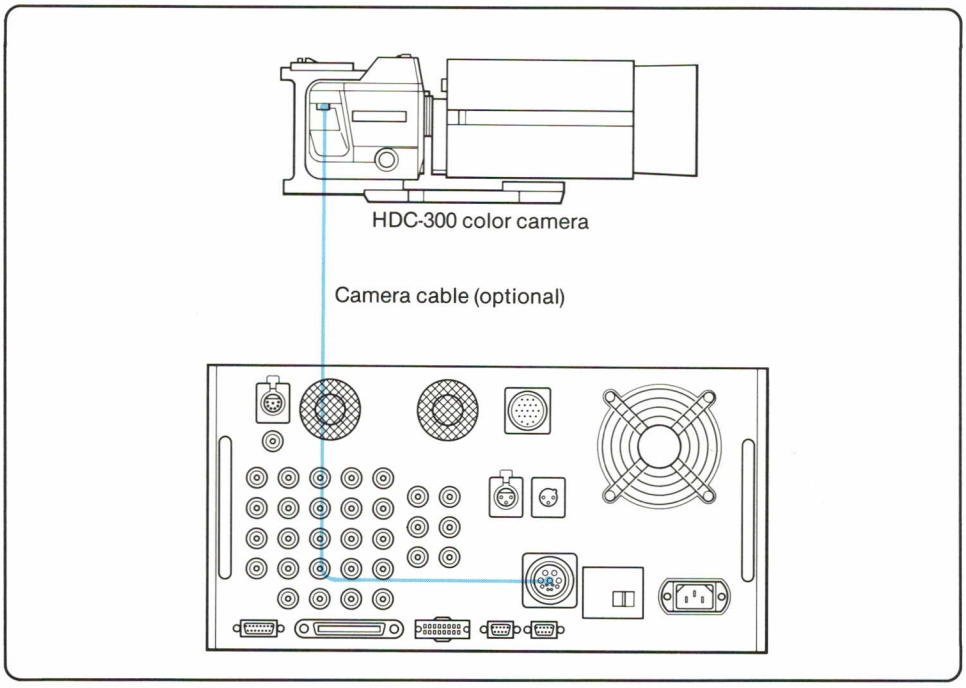
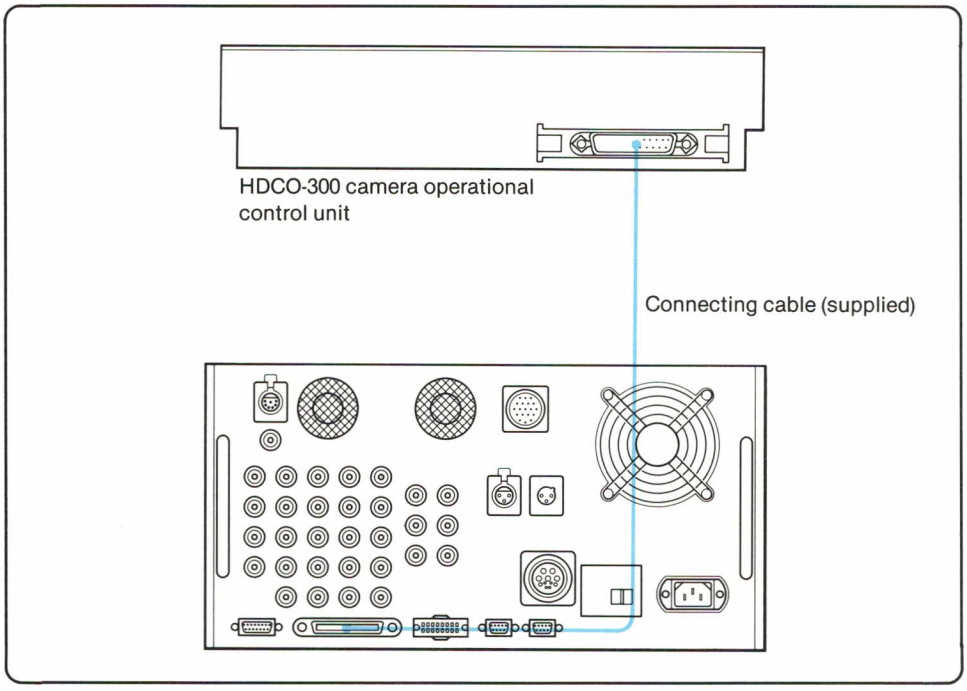
Connections

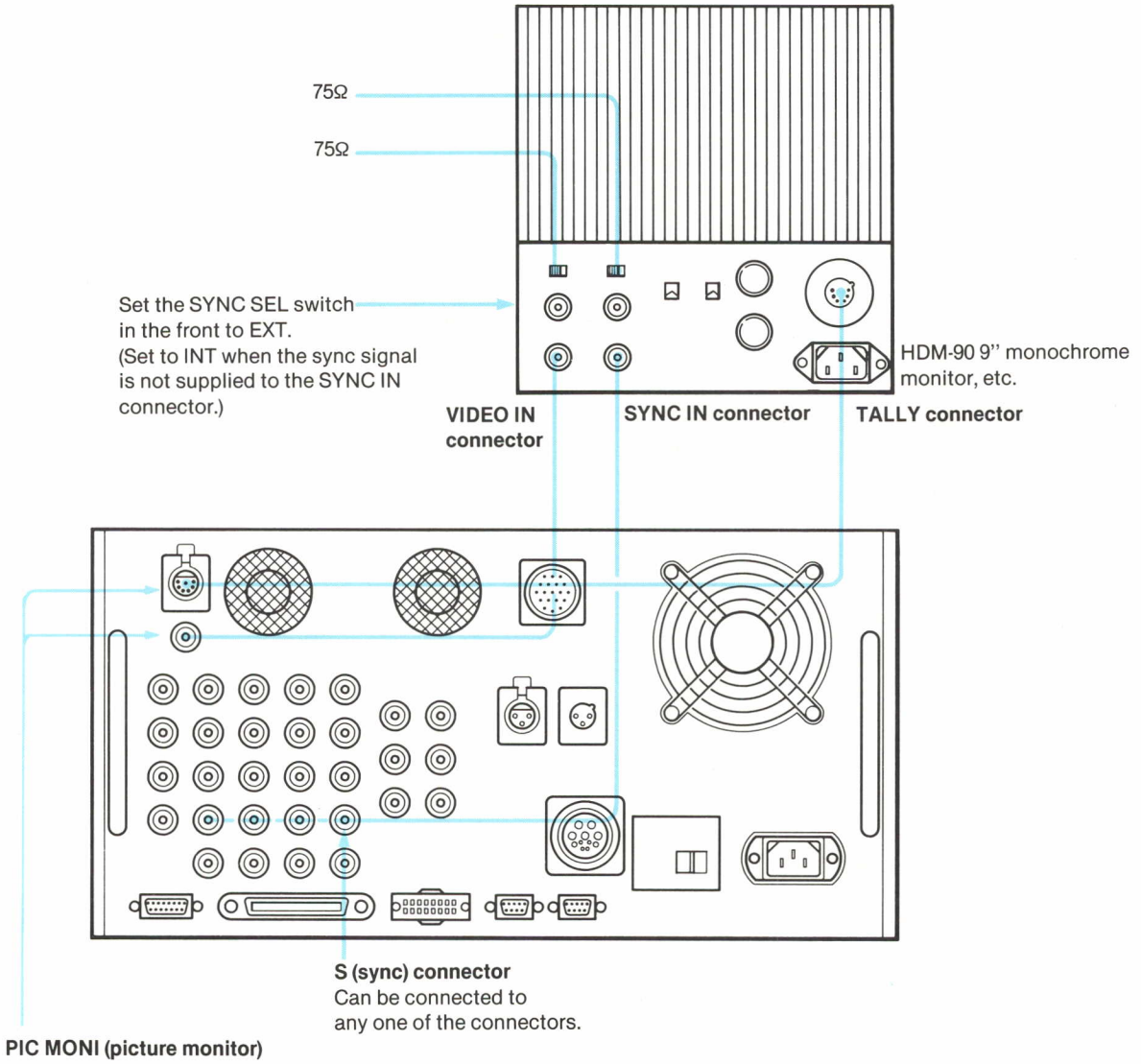
Camera Head



Control Panel

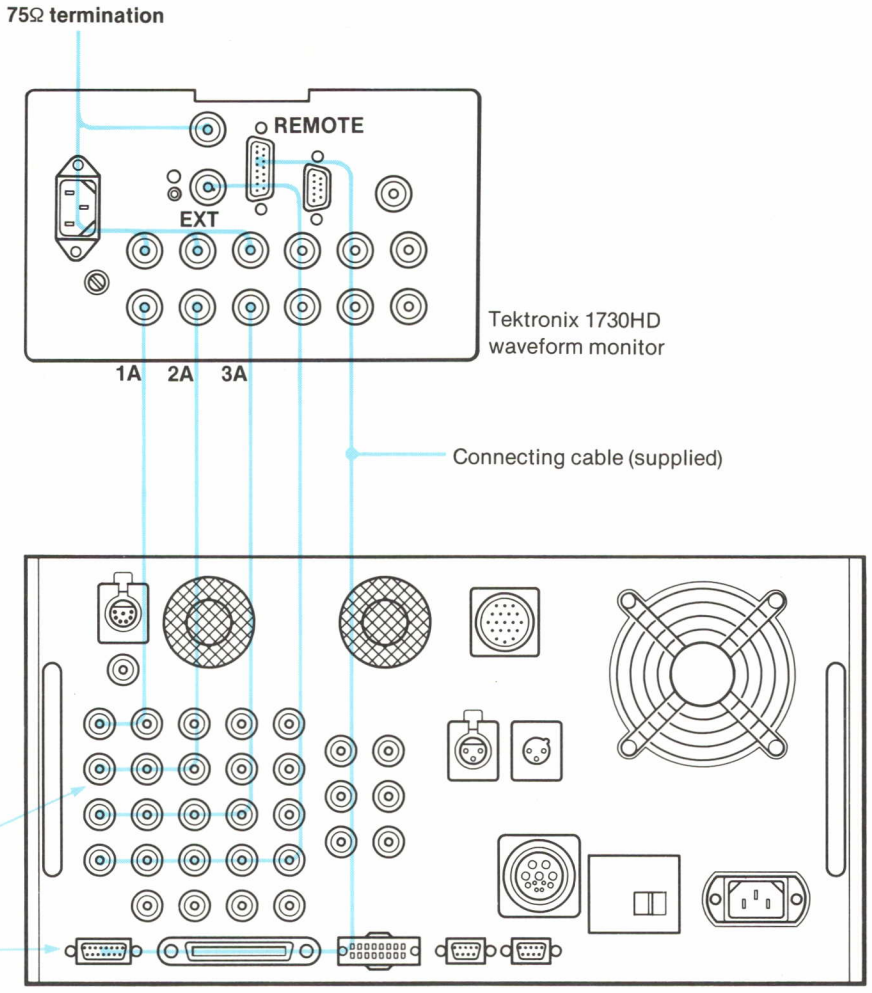


Monochrome Monitor


75Ω
75Ω
Set the SYNC SEL switch in the front to EXT. (Set to INT when the sync signal is not supplied to the SYNC IN connector.)
HDM-90 9" monochrome monitor, etc.
VIDEO IN connector
SYNC IN connector
TALLY connector
S (sync) connector
Can be connected to any one of the connectors.
PIC MONI (picture monitor)

TALLY	Tally signal output connector
VIDEO	(Black and white) video output connector

Waveform Monitor



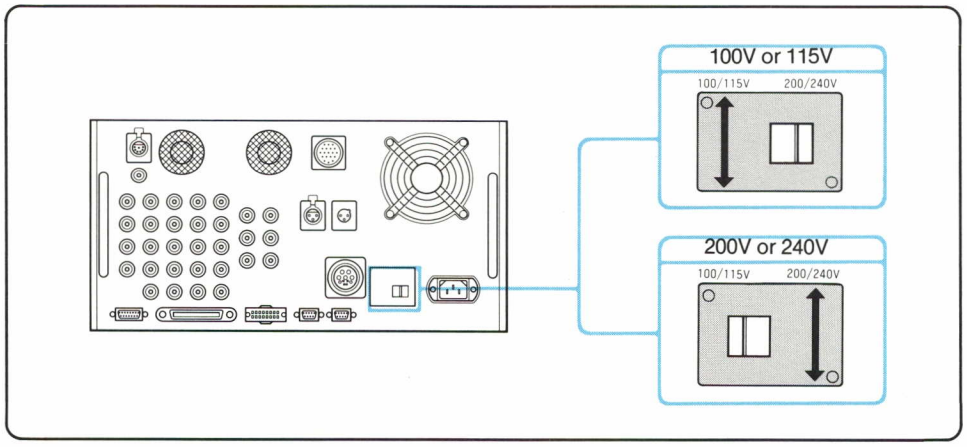
WF MONI (waveform monitor)	Video and sync output connectors
WF CONT (waveform control)	Waveform monitor control connector

When RGB mode has been selected using the HDCO-300's internal switch
Connect R to 1A, G to 2A and B to 3A.

AC Power Supply

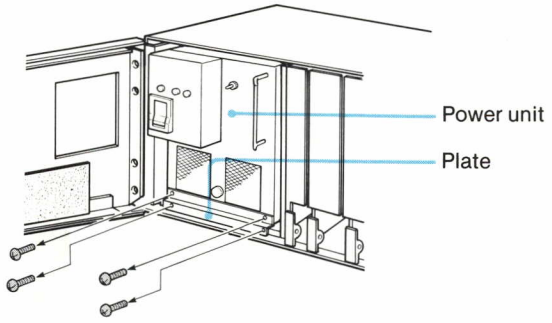
Changing the supply voltage switch setting

Set the switch so that the arrow indicates the supply voltage to be used.

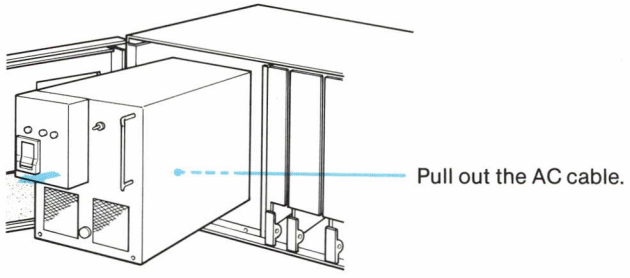


Change the switch setting as follows:

1 Remove the plate fixing the power unit.

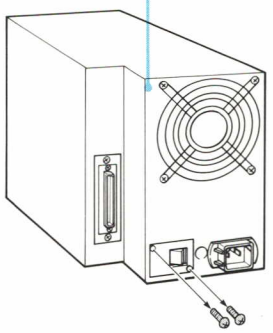


2 Pull out the power unit.

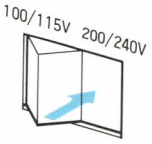


3 Change the switch setting.

①

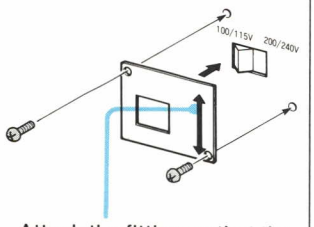


②



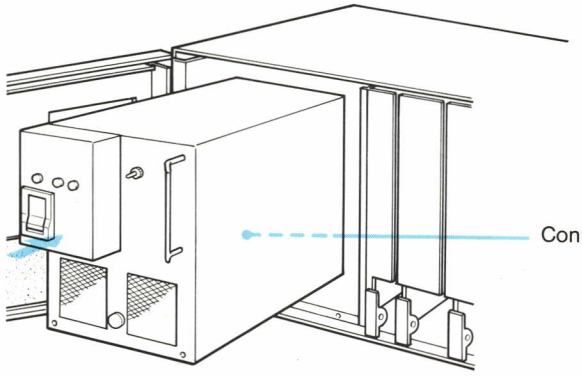
Press the switch for the supply voltage to be used.

③



Attach the fitting so that the arrow indicates the supply voltage to be used.

4 Reinstall the power unit.

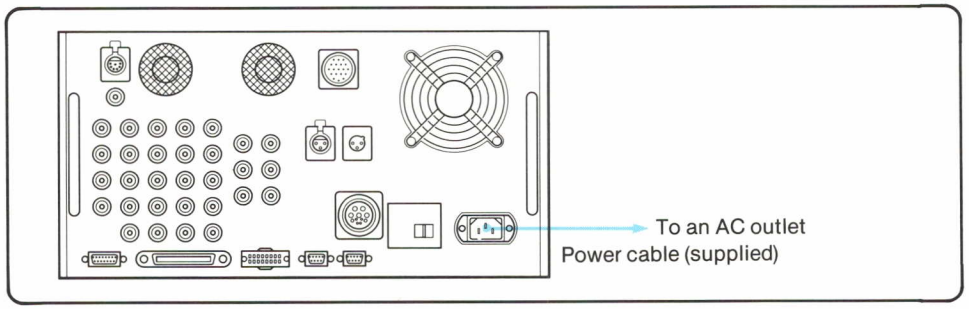


Connect the AC power cable.

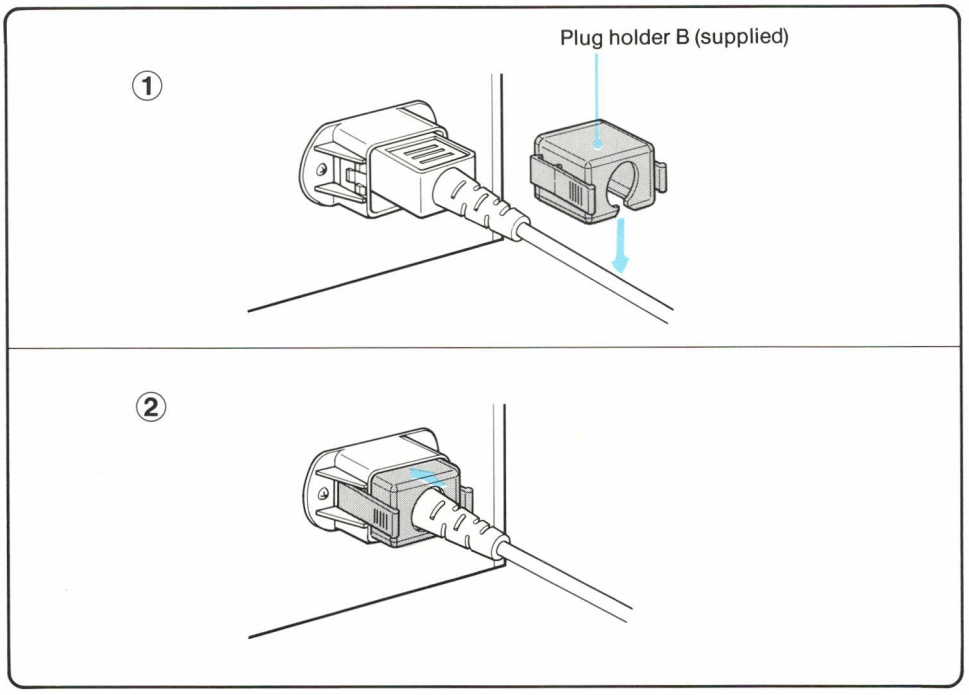
5 Replace the plate.

6 Close the cover.

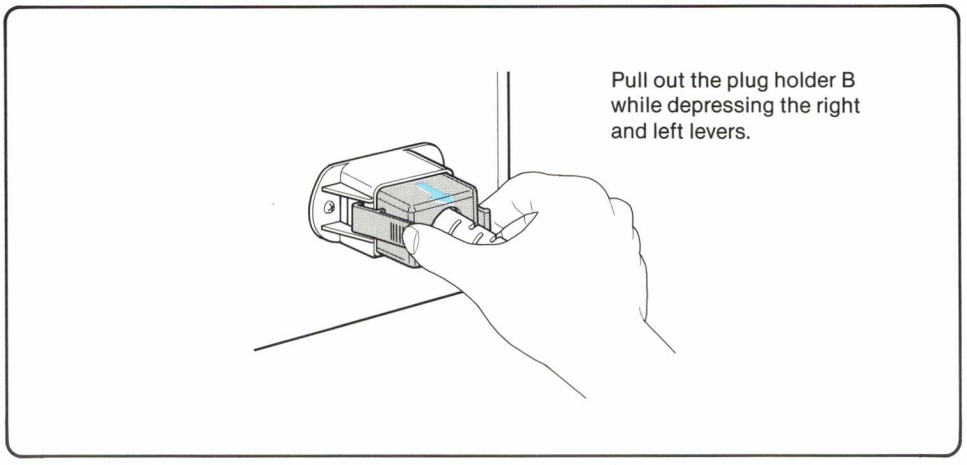
Connections



Fixing the AC power cable



Removing the plug holder



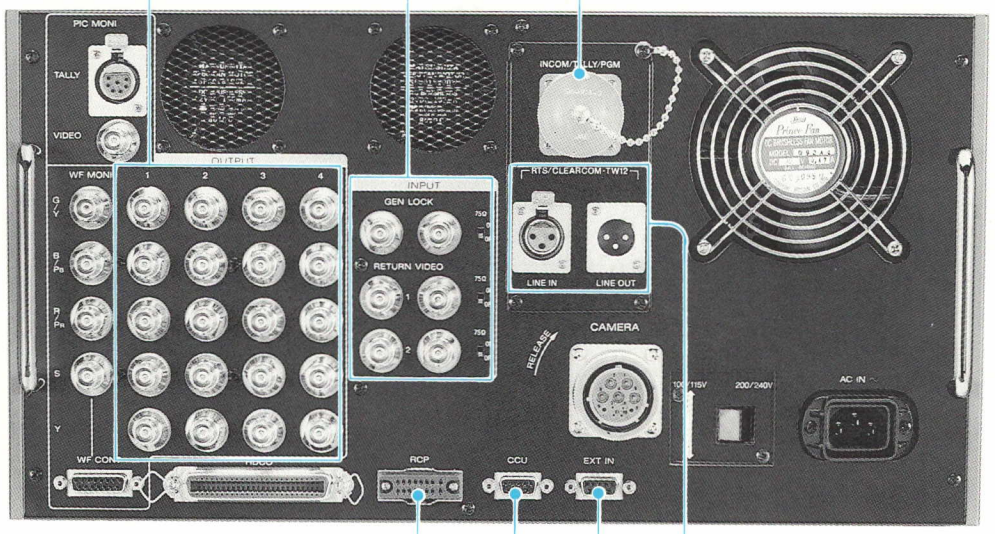
Other Connectors

OUTPUT 1/2/3/4 connectors
Video and sync output connectors. These output R, G, B, S (sync) and Y video signals.
To output Y, P_B and P_R signals, change the switch setting of the MS-23 board inside the panel.

GENLOCK INPUT connectors
Input the reference black burst signal used to genlock the camera.
(When the reference signal is not used, the camera is automatically driven by the internal sync.)

RETURN VIDEO1/2 INPUT connectors
Input the video signals returned from the control console.
For GENLOCK and RETURN VIDEO1/2, input signals to either the right or left connectors. The other channel can be used for "loop-through" output by setting the 75Ω termination to OFF.
To use only one connector, set the termination switch to ON.

INCOM/TALLY/PGM connector
A four-line connector for intercom (engineering and producer lines), tally and program audio connection.



RTS/CLEARCOM-TW12 connectors
LINE IN: RTS/CLEARCOM input connector
LINE OUT: Loop-through output to LINE IN

EXT IN connector
Reserved for future expansion.

CCU connector
Reserved for future expansion.

RCP connector
Connects to the optional remote control panel (to be marketed shortly).

Location and Function of Parts and Controls

Front Panel

Pilot lamp

MAIN
Lights up when the unit's main power switch is turned on.

CCU
Lights up when the HDCO-300 camera operational control unit is turned on.

CHU
Lights up when the HDC-300 camera head is turned on.

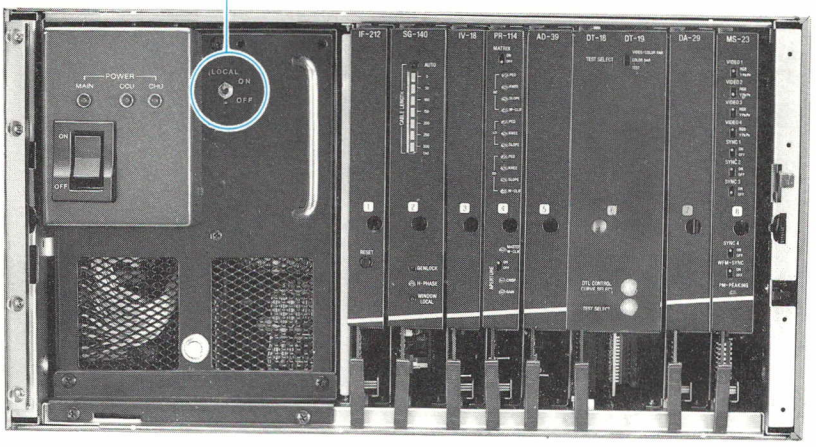
Main power switch

For details on activating the camera system, refer to the HDCO-300 operation manual.

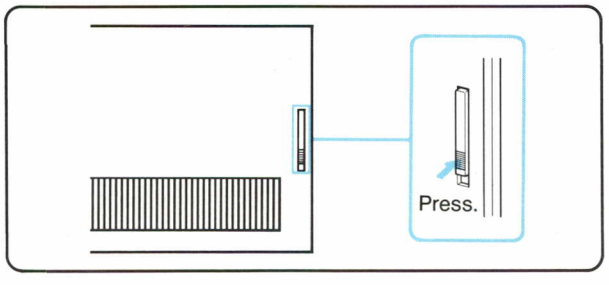
Internal Circuits

LOCAL

ON	Separates unit power on/off control from the HDCO-300.
OFF	Normally set this switch to OFF.



Pulling the lug out



IF-212 circuit board

RESET button
Resets the system.

SG-140 circuit board

AUTO lamp
Lights up when automatically detecting the camera cable length.

CABLE LENGTH indicator
Indicates the camera cable length.

GENLOCK lamp
Lights up when synchronizing with the external sync signal.

H-PHASE volume
Adjusts the horizontal phase.

WINDOW LOCAL lamp
Lights up when the manual window motion is selected.

PR-114 circuit board

MATRIX ON/OFF switch
Implements the masking correction circuit.

PED R/G/B controls
Adjust the pedestal level.

KNEE (knee point) R/G/B volumes
Adjust the knee point.

SLOPE R/G/B volumes
Adjust the white compression level by changing the slope above the knee point.

W CLIP (white clip) R/B/MASTER volumes
Control the white clip level.

APERTURE ON/OFF switch
Implements the contour correction circuit.

CRISP volume
Adjusts the level of elements recognized as noise in the contour components.

GAIN volume
Adjusts the contour correction level.

DT-18/19 circuit board

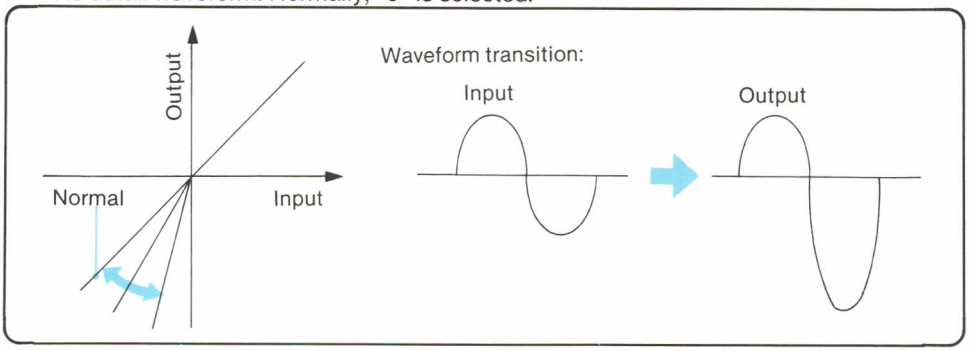
TEST SELECT switch

Selects a test signal obtained when pressing the TEST button on the panel (HDCO-300).

VIDEO/COLOR BAR	Alternates between camera video and color bar signals in a H-cycle.
TEST	Signal selected by the TEST SELECT switch.

DTL (detail) CONTROL CURVE SELECT switch

Selects detail waveform. Normally, "0" is selected.



TEST SELECT switch

Selects one of the eight TEST signal patterns. Normally, TEST signal 7 or color bar is selected.

MS-23 circuit board

VIDEO 1/2/3/4 switches

GBR: Outputs G, B and R video signals.
YPBPR: Outputs Y, PB and PR video signals.

SYNC 1/2/3/4 switches

ON: Enables the sync signal addition to the video signal.
OFF: Disables the sync signal addition to the video signal.

WFM (waveform monitor)-SYNC switch

ON: Enables the sync signal addition to the waveform monitor video signal.
OFF: Disables the sync signal addition to the waveform monitor video signal.

PM (picture monitor)-PEAKING volume

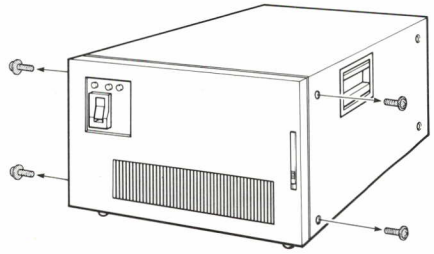
Adjusts the contour enhancing level of the picture monitor image.

For details on internal switch settings and control adjustments, refer to the maintenance manual.

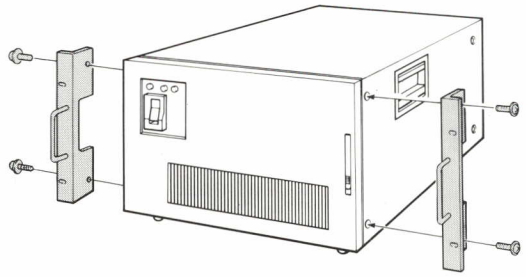
Rack Mount

This unit may be mounted on a 19" EIA standard rack.

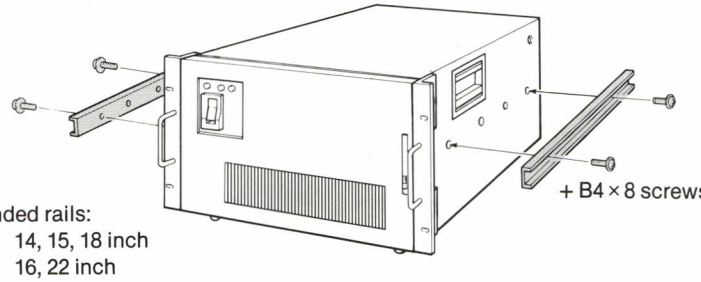
1 Remove right and left side screws.



2 Mount the rack angles using the screws removed in step 1.



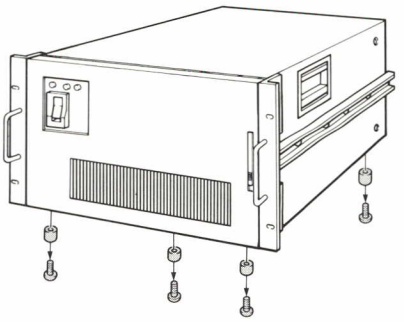
3 Mount the slide rail inner members.



+ B4 × 8 screws (supplied)

Recommended rails:
Model 305 14, 15, 18 inch
Model 203 16, 22 inch

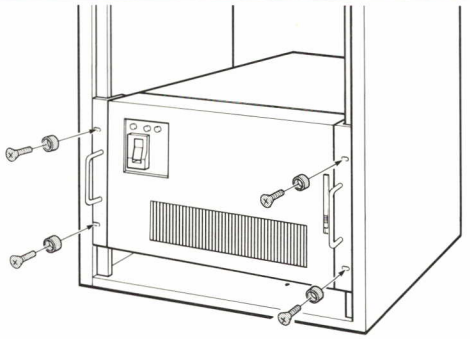
4 Remove the legs.



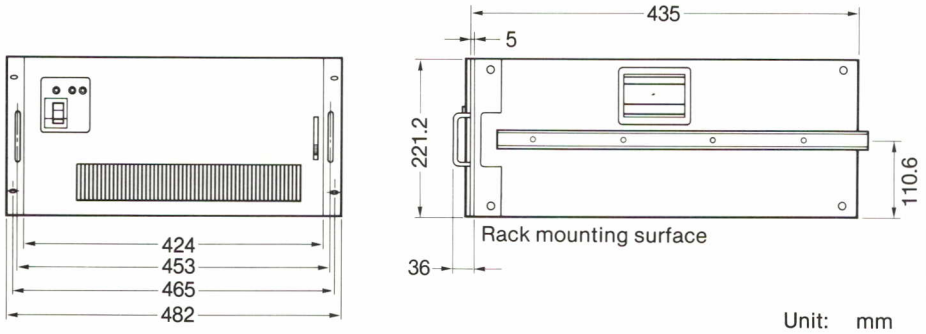
If your unit has a serial No. 10010 or later, attach the removed screws again before installing it to the rack.

5 Mount the brackets and the slide rail outer members to the rack.

6 Secure with screws.



Dimensions after mounting



Specifications

Output	Video: G, B, R or Y, P_B, P_R Sync addition: selectable Sync: Tri-level bipolar synchronization
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	0°C to 40°C (32°F to 104°F)
Dimensions	424 × 221.2 × 486 mm (w/h/d) (16 3/4 × 8 3/4 × 19 1/4 inches) including projecting parts and controls
Weight	Approx. 33 kg (72 lb 12 oz)

Accessories

AC power cord	(2)
Connecting cable (HDCO-300)	(1)
Connecting cable (waveform monitor)	(1)
Screw and washer kit	(1 set)
Converting adaptor	(1)
Plug holder B	(1)
Rack angle (right/left)	(1 each)
Extension board	(1)
Operation manual	(1)
Maintenance manual	(1)

Design and specifications are subject to change without notice.

HDCS-300 (W.W.、英)
3-734-208-**03** (1)

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